

# National Alliance for Nutrition and Activity

## Obesity and Other Diet-Related Diseases in Children

**Obesity and Other Diet-Related Diseases Are Leading Causes of Death in the United States.** Heart disease, cancer, stroke, and diabetes are responsible for two-thirds of deaths in the United States.<sup>1</sup> Major risk factors for those diseases often are established in childhood: unhealthy eating habits, physical inactivity, and obesity.

**Childhood Obesity Is Skyrocketing.** Over the last two decades, rates of obesity have doubled in children and tripled in adolescents.<sup>2</sup> One in seven young people is obese and one in three is overweight. Obese 10-14 year olds are 28 times more likely than non-obese children to be obese in young adulthood.<sup>3</sup> On health-related quality of life tests (measuring physical, psychosocial, emotional, social, and school functioning quality of life), obese children between the ages of 5 to 18 years score significantly lower than healthy children, with scores similar to those of children diagnosed with cancer.<sup>4</sup>

**Children Are Eating More Calories.** U.S. Department of Agriculture (USDA) surveys have found that children ages 2 to 18 years consumed an average of 118 more calories per day in 1996 than they did in 1978.<sup>5</sup> An extra 118 calories per day, if not compensated for through increased physical activity, translates into an average of 12 pounds of weight gain per year.

**Overall, Few Children Are Eating Healthy Diets.** Only 2% of children (2 to 19 years) meet the USDA's five main recommendations for a healthy diet.<sup>6</sup> Three out of four children consume more saturated fat than is recommended in the *Dietary Guidelines for Americans*.<sup>7</sup> Three out of four American high school students do not eat even five servings of fruits and vegetables each day.<sup>8</sup> Many children are both overweight and undernourished.

**Poor Diet and Obesity Are Causing “Adult” Diseases in Children.** One-quarter of children ages five to 10 years show early warning signs for heart disease, such as elevated blood cholesterol or high blood pressure.<sup>9</sup> Atherosclerosis (clogged arteries) begins in childhood. Autopsy studies of 15 to 19 year olds have found that all have fatty streaks in more than one artery, and about 10% have advanced fibrous plaques.<sup>10</sup>

Type 2 diabetes can no longer be called “adult onset” diabetes because of rising rates in children. In one study, the incidence of type 2 diabetes in adolescents increased ten-fold between 1982 and 1994.<sup>11</sup> For individuals born in 2000, the chance of developing diabetes during their lifetime is 39% for females and 33% for males.<sup>12</sup>

**Empty Calories and Obesity.** While obesity is a complex, multi-factorial problem, soft drinks and snack foods play a key role. Children who consume more soft drinks consume more calories (about 55 to 190 per day) than kids who drink fewer soft drinks<sup>13,14</sup> and are more likely to become overweight.<sup>15</sup> Sodas and fruit drinks are the biggest single source of calories and added sugars in the diets of teenagers.<sup>16</sup> Increases in children's calorie intake during the 1990's were driven by increased intakes of foods and beverages high in added sugars.<sup>17</sup>

A study conducted by the Harvard School of Public Health found that for each additional serving of soda or juice drink a child consumes per day, the child's chance of becoming overweight increases by 60%.<sup>18</sup> A health-education program encouraging elementary school students to decrease soft drink consumption reduced rates of overweight and obesity.<sup>19</sup>

Consumption of soft drinks can displace healthier foods from children's diets, like low-fat milk, which can help prevent osteoporosis.<sup>16,17,20,21,22</sup> The number of calories children consume from snacks increased by 120 calories per day between 1977 and 1996, from 363 calories to 484 calories.<sup>23</sup>

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<sup>3</sup> Whitaker R, Wright J, Pepe M, Seidel K, and Dietz W. "Predicting Obesity in Young Adulthood from Childhood and Parental Obesity." *The New England Journal of Medicine* 1997, vol. 337, pp. 869-873.

<sup>4</sup> Schwimmer J, Burwinkle T, Varni J. "Health-Related Quality of Life of Severely Obese Children and Adolescents." *Journal of the American Medical Association* 2003, vol. 289, pp. 1813-1819.

<sup>5</sup> Nielsen S, Seiga-Riz AM, and Popkin B. "Trends in Energy Intake in U.S. between 1977 and 1996: Similar Shifts Seen across Age Groups." *Obesity Research*. 2002;10:370-378.

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<sup>12</sup> Narayan K, Boyle J, Thompson T, Sorensen S, Williamson D. "Lifetime Risk for Diabetes Mellitus in the United States." *Journal of the American Medical Association* 2003, vol. 290, pp. 1884-1890.

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<sup>14</sup> Guenther PM. "Beverages in the Diets of American Teenagers." *Journal of the American Dietetic Association* 1986, vol. 86, pp. 493-499.

<sup>15</sup> Berkey C, Rockett H, Field A, Gillman M, and Colditz G. "Sugar-Added Beverages and Adolescent Weight Change." *Obesity Research* 2004, vol. 12, pp. 778-788.

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